

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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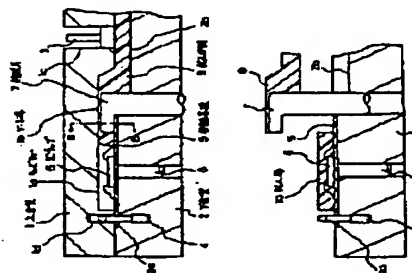
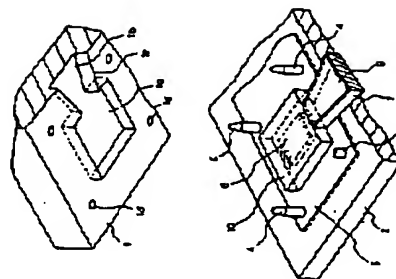
APPLICATION DATE : 20-11-90  
APPLICATION NUMBER : 02315144

APPLICANT : CITIZEN WATCH CO LTD;

INVENTOR : KANEKO HIROYUKI;

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TITLE : SEALING METHOD FOR IC WITH  
RESIN



ABSTRACT : PURPOSE: To prevent a gate track from remaining on a substrate, by fitting a sealing segment for blockading an aperture, in a gate groove of a metal mold, injecting sealing resin in a cavity from a part between the sealing segment and the gate groove, and sealing an IC chip.

CONSTITUTION: A resin substrate 5 to which an IC chip 6 is bonded is set on the substrate fixing part 2a of a lower die 2, while guide pins are inserted. A sealing segment 7 is set at a specified position of an end portion upper surface of a substrate 5. A punch 1 is pressure welded on the upper surface of the lower die 2. The IC chip 6 is covered with a cavity 1a, at an inside position separated from the periphery of the resin substrate 5: the sealing segment 7 is fitted in a gate groove 1b, and an aperture 1e of the gate groove 1b is blockaded. Sealing resin is thrown in a pot 1c and heated and fused. The inside of the cavity 1a is filled with the fused resin 9, through a part between the groove 1b and the sealing segment 7 by using a plunger 3. The punch 1 is isolated from the lower die 2, the sealing segment 7 is pushed up, and unnecessary sealing resin 9 is removed. The substrate 5 is taken out by pushing an ejector pin 8 upward.

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